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| 10/560,234 | 04/20/2006 | Jari Peltonen | 0696-0225PUS1 | 1475 |
| 2292 7590 01/25/2008 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747 | | | EXAMINER ARNOLD, ERNST V | |
| | | | ART UNIT | PAPER NUMBER |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/560,234

Applicant(s)

PELTONEN ET AL.

Examiner

Ernst V. Arnold

Art Unit

1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/12/05;04/20/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Claims 1-11 are pending and under examination.

Comment: In the specification at the top of page 1, please insert the continuity data.

Comment: In claim 1, please insert --- A --- before "Coated seed", such that it reads --- A coated seed --- and amend claims 2-7 to read --- The coated seed ----. Claim 10 also requires insertion of --- A --- before "Method".

Comment: In claim 1, line 4, it states: "with and". This reads awkwardly and should be corrected.

Comment: Claim 3 requires a period.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The information disclosure statement filed 4/20/06 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because there is no English language equivalent or abstract for PL 146138 and a line has been drawn through the reference. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-

submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

In the present instance, claim 3 recites the broad recitation 0.01-5, and the claim also recites 0.1-5 which is the narrower statement of the range/limitation.

In the present instance, claim 7 recites the broad recitation 1-50, and the claim also recites 5-30 which is the narrower statement of the range/limitation.

In the present instance, claim 9 recites the broad recitation 1-50, and the claim also recites 5-50 which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by SU 1043137A 1983 (Applicant supplied IDS submitted on 12/12/05). Please note that the Examiner is relying on the International Preliminary Report on Patentability as an English language equivalent of this foreign reference.)

The report states that SU 1043137A discloses a coated lucerne seed with a 0.1% solution of iron (plant nutrient) chelated with ethylenediamine discuccinic acid, therefore meeting the limitations of instant claim 1.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 8, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Dean (US 6,444,614).

Dean discloses compositions and methods related to plant and plant precursor compositions comprising the aspartic acid derivatives IDS and EDDS (See abstract, examples I-III; figures 1-25 and claims 1-29, for example). Dean discloses in claims 1 and 8 (examiner added emphasis):

What is claimed is:

1. A fertilizer-free and Group IIa or higher Group metal cation-free composition of matter consisting essentially of water and a plant precursor or plant growth stimulating or regulating concentration of a mixture of (a) IDS and/or one or more of its ammonium salts, alkali metal salts, ammonium-alkali metal salts or optical isomers thereof; (b) EDDS and/or one or more of its ammonium salts, alkali metal salts, ammonium-alkali metal salts or optical isomers thereof ; and, optionally, 1 H-indole-3-butanoic acid, with the weight ratio of (a):(b) being from about 1:20 up to about 20:1.

8. The composition of claim 1 intimately admixed with at least one adjuvant selected from the group consisting of:

- (a) carriers;
- (b) surfactants;
- (c) carbon skeleton energy adjuvants;
- (d) vitamin/co-factor adjuvants;
- (e) gums;
- (f) anti-microbial agents;
- (g) buffers;
- (h) protective colloids; and
- (i) viscosity modifiers.

It is the Examiner's position that "plant precursor" reads on seed and such a seed is inherently coated by the aqueous composition. Thus, instant claims 1, 2 and 8 are anticipated.

Dean also discloses in claim 29:

--
29. A process for stimulating or regulating, substantially in the absence of any fertilizer or Periodic Table Group IIa or higher group metal cations or chelated metals, the growth of a living, growing plant precursor which is a germinating seed or plant having a degree of maturity of from about >0%, the seedling stage, up to about <100%, the late maturity stage, of full growth consisting of the steps of:

- (a) formulating an aqueous plant precursor or plant growth-regulating or stimulating solution consisting essentially of water, substantially free of any fertilizer or any Periodic Table Group IIa or higher Group metal cations or chelated metals; at least one substantially pure nitrogen-containing organic compound selected from the group consisting of IDS, EDDS, ammonium salts thereof, alkali metal salts thereof, ammonium-alkali metal salts thereof and optical isomers thereof; and, optionally, 1H-indole-3-butanoic acid;
 - (b) providing an adjuvant for said formulated aqueous solution selected from the group consisting of:
 - i. carriers;
 - ii. surfactants;
 - iii. carbon skeleton energy adjuvants;
 - iv. vitamin/co-factor adjuvants;
 - v. gums;
 - vi. anti-microbial agents;
 - vii. buffers;
 - viii. protective colloids; and
 - ix. viscosity modifiers
 - (c) intimately admixing said adjuvant with said formulated aqueous solution in order to form an adjuvant-containing formulated aqueous solution; and
 - (d) applying, in the absence of fertilizer or Periodic Table Group IIa or higher Group metal cations or chelated metals, said adjuvant-containing formulated aqueous solution to said plant precursor or to said plant or to the effective proximity of said plant precursor or said plant, over a period of time and rate, and in a concentration and quantity, such that the plant precursor growth or plant growth is stimulated or regulated.
-

It is inherent in the method of Dean to coat the seeds with the solution and it is inherent to do the coating with some device for that purpose (see figures 2-6 and

column 8, lines 1-54) and therefore it is the Examiner's position that instant claims 10 and 11 are anticipated.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dean (US 6,444,614).

Applicant claims a coated seed with IDS or EDDS and methods of making the coated seed.

Determination of the scope and content of the prior art

(MPEP 2141.01)

The reference of Dean is described in detail above and that discussion is hereby incorporated by reference.

Ascertainment of the difference between the prior art and the claims

(MPEP 2141.02)

1. The difference between the instant application and Dean is that Dean does not expressly teach the weight percentages of the components with respect to the weight of the seed (see instant claims 3-7 and 9).

2. The difference between the instant application and Dean is that Dean does not expressly teach a composition or method with characterized in that the coating comprises 0.1-2% by weight of a trace element relative to seed weight.

Finding of prima facie obviousness

Rational and Motivation (MPEP 2142-2143)

1. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to make the coated seed of Dean with the instantly claimed percentages of components with respect to the weight of the seed and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because it would merely be following the guidelines set forth by Dean. It is merely routine optimization of the composition taught by Dean.

2. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to make the coated seed of Dean with the instantly claimed percentage a trace element with respect to the weight of the seed and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because it Dean teaches adding thiamine HCl which would be a source of the trace element chlorine (see instant application page 2, line 11). It is then merely routine optimization of the amount of the hydrochloride salt to be added to the aqueous coating mixture.

From recent case law: "the results of ordinary innovation are not the subject of exclusive rights under the patent laws." (KSR INTERNATIONAL CO. v. TELEFLEX INC. ET AL. 550 U. S. ____ (2007) page 24).

A reference is good not only for what it teaches by direct anticipation but also for what one of ordinary skill in the art might reasonably infer from the teachings. (*In re Opprecht* 12 USPQ 2d 1235, 1236 (Fed Cir. 1989); *In re Bode* 193 USPQ 12 (CCPA) 1976).

In light of the forgoing discussion, the Examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a).

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

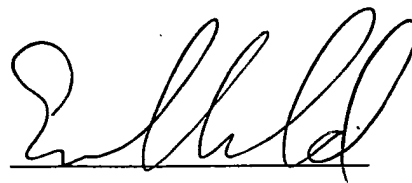
Conclusion

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernst V. Arnold whose telephone number is 571-272-8509. The examiner can normally be reached on M-F (6:15 am-3:45 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Ernst Arnold', is written over a horizontal line.

Ernst Arnold
Patent Examiner
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